

RESPONSE UNDER 37 C.F.R. § 1.111

US Application No. 09/628,804

Q60260

respectfully submit that the meaning of every term or phrase recited in claim 2 would be easily ascertainable by one skilled in the art after reading Applicants' specification, including the language italicized in the Examiner's objection. Nevertheless, if the Examiner continues to believe that the specification fails to provide proper antecedent basis for claim 2, Applicants kindly request the Examiner to point out with more particularity why the meaning of claim 2 would not have been ascertainable. In addition, the Examiner is invited to suggest any language that would resolve objection.

The Examiner has withdrawn the previous prior art rejections in view of Kanoh et al. Grandmont et al., and Adams et al. However, the Examiner now rejects the claims as follows:

1. Claims 1, 8, and 11 are rejected under 35 U.S.C. § 102(e) as being anticipated by Noguchi et al. (USP 5,959,846). The Examiner is kindly requested to forward a copy of form PTO-892 that accompanied Paper No. 17, as a copy of this form was not mailed with the Office Action.

Claims 2, 3, 9, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

Applicants respectfully traverse the prior art rejections.

Claim Rejections - 35 U.S.C. § 102

1. Claim 1, 8, and 11 In View Of Noguchi, et al.

In rejecting claims 1, 8, and 11 in view of Noguchi, et al., the grounds of rejection state:

Regarding Claim 1, Noguchi discloses a method of obtaining a module comprising: forming a stacked assembly (shown in Fig. 11) by stacking the plurality of aligned modular

printed circuit film elements (substrates 6a, 6b) carrying a set of turns (radial connections 5b) of conductive tracks 4 which form part of the inductive winding and the conductive tracks 4 terminate near an edge of the modular printed circuit film (example shown in Fig. 1); molding an insulative material (resin 30) over the stacked assembly of modular printed circuit film elements to constitute a rigid block (see col. 7, lines 45-49); cutting the rigid block laterally (at cut lines 7 and 8) to expose an end for each of the conductive tracks 4 and so that the exposed ends are flush with a surface of one face of the block (See Fig. 12b); and creating connections on the one face of the block with which the exposed ends are flush to selectively interconnect the one conductive tracks and to connect the tracks to connection means external to the module (see examples of external connection means at col. 2, lines 25-29).

Regarding Claim 8, Noguchi teaches all of the limitations as relied upon above in Claim 1 and further including that the claimed "first support" and "second support" is read as substrates.

Regarding Claim 11, Noguchi further teaches the first and second conductive tracks 4 are formed before the stacking step (see col. 6, line 36 to col. 7, line 10).

Office Action at pages 2-4. Applicants respectfully disagree.

Applicants' invention as recited in independent claims 1 and 8 is directed to a structure very different from that disclosed in Noguchi et al. A primary difference is that the modular surface mount circuit device disclosed in Noguchi et al. in Figs. 1-17 do not have "printed circuit film elements carrying a set of turns of one or more conductive tracks" (claim 1) or "at least a first conductive track having turns on the first support to form a winding thereon" (claim 8). To the contrary, a careful reading of Noguchi et al. reveals that this document discloses a series of radial connections 5b, cylindrical connections 5a, and radial connections 5c that serially connect to form a toroidal coil 1a about the core 10. Note the following disclosure and Figs. 1 and 2:

Etching is applied on the plating layer so that a cylindrical connection 5a is formed on the inside wall of each of through holes 3a and 3b as shown in FIG. 6, a radial connection 5b is formed between the cylindrical connections 5a of opposite through holes 3a and 3b, and opposite terminal electrodes 4 are formed on opposite end portions and opposite sides. Thus, electrical connection is formed between the outer surface and the joining face of the insulating substrate 2a through the cylindrical connection 5a on the inside wall of each through hole. As shown in FIG. 6, each of the through holes 3a and 3b is plated so as to remain a through hole 3e in the center thereof.

Referring to FIG. 7, the second insulating substrate 2b is the same as the first insulating substrate 2a in configuration and structure. Therefore, parts which are the same as those of the first substrate 2a are identified with the same reference numerals of FIG. 5, and the descriptions thereof are omitted. However, in the second insulating substrate 2b, a radial connection 5c is formed to connect adjacent cylindrical connection of diagonal through holes 3a and 3b such that a zigzag pattern is formed as viewed in plan as shown in FIG. 1 when both substrates 2a and 2b are joined.

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Next, a second plating process is performed. The integral unit 13 is further plated with copper. Thus, the connecting portions 3d (FIG. 7) of the cylindrical connections 5a of the corresponding through holes 3a and the corresponding through holes 3b, and the connecting portions 4c of the electrodes 4 are connected to each other for electrical connection. Thus, in each section, the corresponding copper radial connections 5b connected to the cylindrical connections 5a of the through holes 3a and 3b are provided around the annular core for spirally winding the core, thereby forming the toroidal coil 1a. Each coil 1a forms the coil in a series of turn from the starting pattern to the end pattern.

Noguchi et al. at column 5, lines 1-13; and column 7, lines 24-35. (emphasis added).

Indeed, the only disclosure of turns of one or more conductive tracks is with reference to the prior art in Figs. 19 and 20. See Noguchi et al. at column 2, lines 11-31. However, the disclosed manufacturing process disclosed in Noguchi et al., and upon which the Examiner relies

to reject claims 1 and 8, is uniquely for the circuit device having the toroidal coil 1a. Indeed, the reference notes the problems of planar swirl coils and, therefore, teaches away from making such a structure.

Moreover, claims 1 and 8 require the steps, respectively, of “molding an insulative material over the stacked assembly of the modular printed circuit film elements to constitute a rigid block” (claim 1), and of “molding an insulative material over the stacked assembly to form a block” (claim 8). The grounds of rejection point to the disclosure in Noguchi et al. of a layer deposition step in which a “sealing resin 30 of thermoplastic resin is deposited on the upper side by transfer molding.” Noguchi et al. at column 7, lines 46-47 (emphasis added). Certainly, one skilled in the art would understand that the deposition of a resin layer on the upper side only serves to shield and protect that side, and does not form a block or rigid block out of the stacked layers (assembly).

In view of at least the foregoing distinctions, Applicants kindly request the Examiner to reconsider and withdraw the rejections of claims 1, 8, and 11.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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Date: March 13, 2003